

REMARKS

Claims 1-3, 5-9, 11 and 12 are pending in this application. Claims 1 and 7 are amended herein. Upon entry of this amendment, claims 1-3, 5-9, 11 and 12 will be pending. Entry of this amendment and reconsideration of the rejections are respectfully requested.

No new matter has been introduced by this Amendment. Support for the amendments to the claims is discussed below.

Claims 1-3, 5-9, 11 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tomioka (U.S. Pat. No. 5,079,030) in view of Carpenter (U.S. Pat. No. 5,320,673) and Takashi et al. (JP 2001-149857, a machine translation of the disclosure is provided) and Noritake et al. (JP 2003-117481, a machine translation of the disclosure is provided). (Office action paragraph no. 1)

Reconsideration of the rejection is respectfully requested in view of the amendments to base claims 1 and 7. In each of claims 1 and 7, step (1) of applying an aqueous luster coated has been amended from applying in “three to five stages” to –four or five stages--. Support for this recitation may be found, for example, in Examples 1 to 3, 7 and 8 of the specification.

The methods of claims 1 and 7 provide a highly dense texture and high flip-flop property, which are remarkable effects achieved by the present invention. In particular, this effect is associated with the limitation in which an aqueous luster thermosetting base coating composition (A) is applied to a substrate in **four or five stages**, in such a manner that the thickness of the base coating composition applied in each of the second and subsequent stages becomes **0.3 to 5 μ m** when cured; in other words, the **thickness** of the aqueous luster thermosetting base coating composition

applied in each of the second and subsequent stages is **low**, and a base coating film consisting of such thin coating layers successively superposed is formed, thereby providing a highly dense texture and high flip-flop property.

The Examiner states in the rejection:

“Tomioka teaches a method of forming a luster coating film (see abstract) comprising the step of:

(1) applying an aqueous luster base coating composition to a substrate in three to five stages, such that the thickness of the base coating applied in each of the second and subsequent stages is between 0.3 to 5 μm when cured (column 4, lines 19–32)” (page 3, lines 13 to 17, of the Office Action);

“Tomioka however fails to explicitly teach the base coating and clear coating being a thermosetting coating ...” (page 4, lines 5 to 6, of the Office Action);

“Carpenter teaches that both these coatings may be thermosetting compositions” (page 4, lines 12 to 13 of the Office Action);

“It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tomioka’s method of forming a luster coating film by utilizing a thermosetting aqueous luster base coat ... according to Carpenter” (page 4, line 18 to page 5, line 1, of the Office Action); and

“Takashi also teaches that the aqueous luster thermosetting base coating composition has a solids content of 14 weight %” (page 5, lines 10 to 11, of the Office Action).

(1) However, the invention of Tomioka, which is the main cited reference, is completely different from the present invention in the problem to be solved by the invention and in the means for solving the problem.

More specifically, Tomioka merely states in column 1, lines 33 to 47 that **increasing the striking velocity** of the paint particles of a water base metallic paint can suppress darkening.

Tomioka nowhere discloses that to obtain a highly dense texture and high flip-flop property, the **thickness** of the aqueous luster thermosetting base coating composition applied in each of the second and subsequent stages is **low**, and a base coating film consisting of such thin coating layers successively superposed is formed.

(2) In the claims, as amended, step 1 requires applying a luster thermosetting base coating composition in “**four or five stages**, in such a manner that the thickness of the base coating applied in each of the second and subsequent stages becomes **0.3 to 5 μm** when cured” (emphasis added). Tomioka merely states in column 1, lines 13 to 15 that “because an air spray gun has a **poor paint transfer efficiency**, about 25 to 30%, the thickness of the coat attained in one spraying is around 4 microns.”

Tomioka further states in column 1, lines 19 to 21 that “[t]aken with the poor paint transfer efficiency, the plurality air spray gun spraying with water base metallic paint is productivity poor.”

Tomioka thus teaches that it is **preferable** to form a **thick** coating film by a single application of the coating composition, from the viewpoint of productivity.

None of Carpenter, Takashi, and Noritake et al. discloses that **thin** coatings each having a thickness of **0.3 to 5 μm** are successively formed and superposed in the second and subsequent stages.

On the contrary, the Examples 1 and 2 of Takashi et al., and the Examples 1 and 2 and comparative Examples 1 and 2 of Noritake teach that a coating layer formed by a single application of an aqueous luster thermosetting base coating composition by air-spraying may have a thickness of 8 μm or more, which is **much greater than 5 μm** .

Therefore, a person skilled in the art would be motivated from Tomioka to increase the thickness of the aqueous luster thermosetting base coating composition of Carpenter, Takashi, or Noritake et al. in order to increase productivity. The person skilled in the art would **not** be motivated to increase the coating stages so that thin aqueous luster thermosetting base coating layers each having a thickness of not more than 5 μm are successively formed and superposed.

The invention of claim 1 of the present application is directed to a method of forming a luster coating film comprising the step of (1) applying **an aqueous luster thermosetting base coating composition (A)** with a solids content of about 5 to about 15 wt.% to a substrate in four or five stages, in such a manner that the thickness of the base coating composition (A) applied in each of the second and subsequent stages becomes **0.3 to 5 μ m** when cured. Accordingly, the present invention having this feature is not obvious to a person skilled in the art.

(3) In addition, as noted above, claims 1 and 7 have been amended to recite that the aqueous luster thermosetting base coating composition (A) is applied in “four or five stages.”

In contrast, Fig. 5 of Tomioka merely shows a coating film formed by applying a water base metallic paint in **three stages**. There is no suggestion in Tomioka for the specific limitation of “four or five stages.”

Claims 2, 3 and 5 are method claims dependent from claim 1, and have all of the limitations of claim 1. Similarly, claims 8, 9 and 11 are method claims dependent from claim 7, and have all of the limitations of claim 7.

The inventions of claims 6 and 12 are directed to an automotive body or part thereof having a luster coating film formed by the methods of claims 5 and 11, respectively. It is clear that the structure of the resulting product of each of these methods will be determined by method of making it, and in particular, by the limitations on the thickness of the coating compositions and the number of stages in steps (1) and (3) of claims 1 and 10. Therefore, the structures of claims 6 and 12 are not disclosed or suggested by the cited references.

U.S. Patent Application Serial No. 10/576,277

Response filed August 11, 2009

Reply to OA dated April 14, 2009

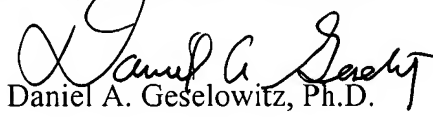
Claims 1-3, 5-9, 11 and 12 are therefore not obvious over Tomioka (U.S. Pat. No. 5,079,030), Carpenter (U.S. Pat. No. 5,320,673), Takashi et al. (JP 2001-149857) and Noritake et al. (JP 2003-117481), taken separately or in combination.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

KRATZ, QUINTOS & HANSON, LLP



Daniel A. Geselowitz, Ph.D.

Agent for Applicant

Reg. No. 42,573

DAG/xl

Atty. Docket No. 060322
Suite 400
1420 K Street, N.W.
Washington, D.C. 20005
(202) 659-2930

23850

23850

PATENT & TRADEMARK OFFICE

Enclosure: Petition for Extension of Time

H:\060\060322\RESPONSE IN RE FOA OF 04-14-09.DOC